EXHIBIT A
Stream Flow Monitoring in South-Central Steelhead Habitat of the Lower Big Sur River
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Install a satellite telemetry-linked streamflow gage on the lower Big Sur River. Provide operating and maintenance resources for the gage for a period of 4 years. Develop streamflow rating curve and monitor streamflow in the lower Big Sur River.
2. Conduct work on the Big Sur River in Andrew Molera State Park. The stream gage will be installed downstream of Hwy 1. The project is located Township 19S, Range 01E of the Big Sur U.S.G.S. 7.5 Minute Quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Complete the following work:
    a. Obtain Landowner Access Agreement (LAA) for work on all property where work will occur.
    b. Select the location and placement of gage in consultation with landowner (State Parks), USGS, and CDFG engineers. The location shall be approved by CDFG engineers.
    c. Submit LAA and a final schedule of work to the Grant Manager for DFG review and approval at least 30 days prior to beginning work.
    d. Install satellite telemetry-linked stream flow gage at approved location; work to be done by USGS. Calibrate the rating curve for the gage with a range of discharge measurements utilizing USGS-accepted protocols. Rating curve calibration and the frequency of measurements shall be approved by DFG.
    e. Maintain the gage and record gage measurements for a period of 4 years.
    f. Upload electronic streamflow data hourly on USGS streamflow reporting website.

4. All habitat improvements will follow techniques described in the Third Edition of the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al. 1998) and the *California Salmonid Stream Restoration Manual,* Third Edition, Volume II, Part XI, January 2004.
5. Submit a progress report to the Contract Manager at least once every three months. In addition, if work has been completed under the contract during the three month reporting period, submit an invoice, and a record of in-kind services provided during the invoice billing period. The invoice submission shall include a separate record of specific record of specific expenditures in the format of Exhibit B.
6. Upon completion of the project, the Grantee shall submit one (1) copy of a draft final report not later than January 31, 2014 for review and comment. Within 30 days of receipt of the draft report, the Project Manager shall submit his or her final comments to the Grantee. Upon completion of the project, the Grantee shall submit two (2) hard copies of a final written report and one (1) electronic, *Microsoft Word* or *Adobe Acrobat* compatible, on a CD. All data collected and created for this grant is a required deliverable of this grant and will become the property of the Department of Fish and Game, and not of the grantee. A condition of final payment on this grant shall include the delivery of all related data. The report shall not be considered final until approved and accepted by the grant manager. The report shall include, but not necessarily be limited to the following information:

    - Grant number;
    - Project name;
    - Geographic area (e.g., watershed name);

- Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map;
- Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon);
- Project start and end dates;
- Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service);
- Total number of volunteer hours; dollar value of volunteer work; description of how the dollar value of the volunteer labor was determined; dollar value of non-volunteer donated labor; and description and dollar value of non-labor in-kind contributions to the project.
- Expected benefits to anadromous salmonids from the project;
- Labeled before and after photographs of any restoration activities and techniques;
- Specific project access using public and private roads and trails, with landowner name and address;
- Complete as built project description; and
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

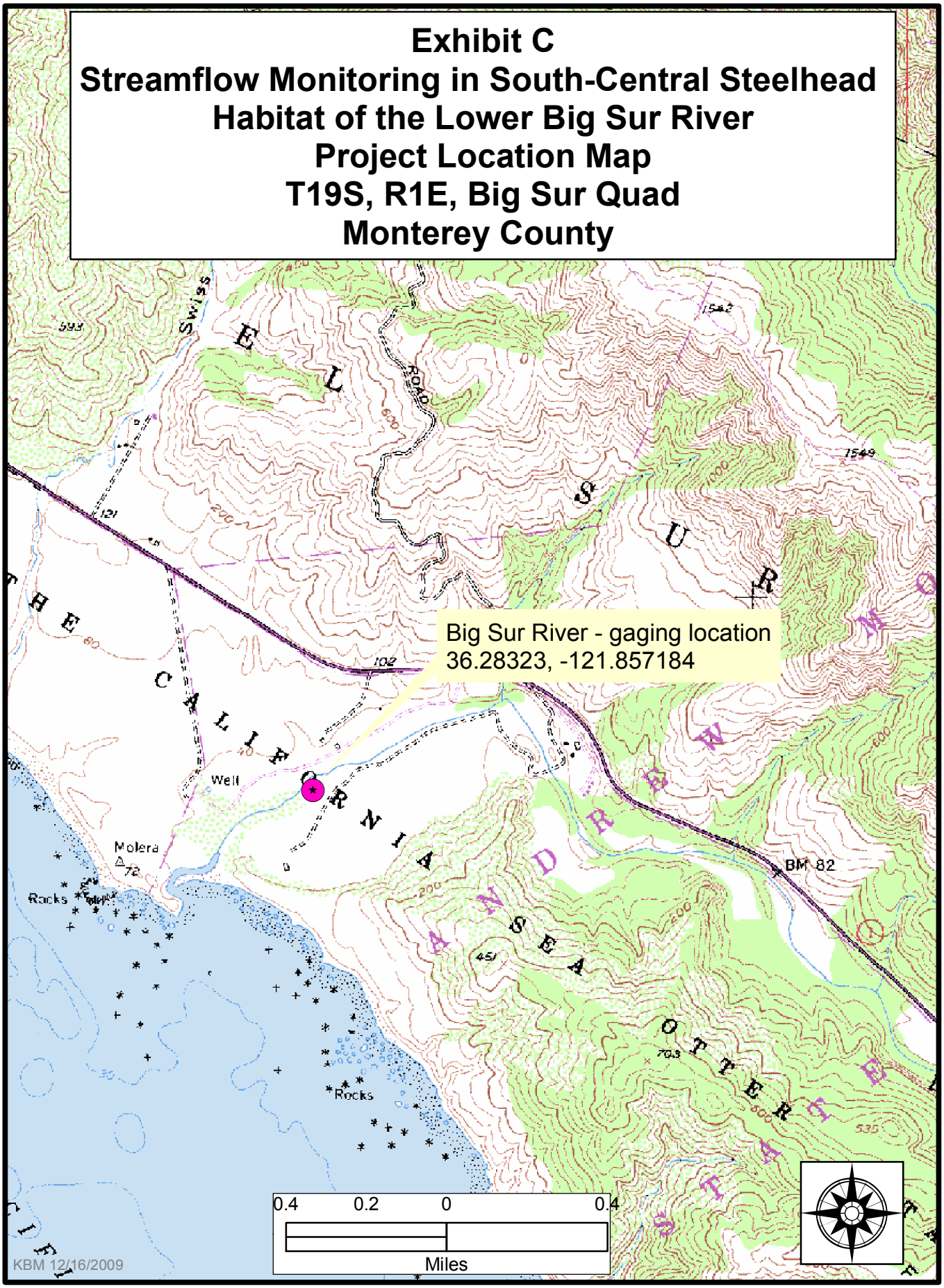
Habitat Protection and Restoration Projects – Reporting

<u>Water Measuring Devices (Instream and Water Diversion) (WD)</u>

- Number of water flow gauges installed.

3. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant Program funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Big Sur River Stream Gage Installation Project.

Exhibit C
Streamflow Monitoring in South-Central Steelhead Habitat of the Lower Big Sur River
Project Location Map
T19S, R1E, Big Sur Quad
Monterey County



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723321_009_WD_Streamflow Monitoring in South-Central Steelhead Habitat
19S01E16, 19S01E15, 19S01E22, 19S01E23, 19S01E24, 19S01E25, 19S02E29, 19S02E30, 19S02E31

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	California red-legged frog *Rana draytonii*	AAABH01022	Threatened		G4T2T3	S2S3	SC
2	California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened	unknown code...	G2G3	S2S3	SC
3	Carmel Valley bush-mallow *Malacothamnus palmeri var. involucratus*	PDMAL0Q0B1			G3T2Q	S2.2	1B.2
4	Carmel Valley malacothrix *Malacothrix saxatilis var. arachnoidea*	PDAST660C2			G5T2	S2.2	1B.2
5	Eastwood's goldenbush *Ericameria fasciculata*	PDAST3L080			G2	S2.1	1B.1
6	Hutchinson's larkspur *Delphinium hutchinsoniae*	PDRAN0B0V0			G2	S2.1	1B.2
7	Smith's blue butterfly *Euphilotes enoptes smithi*	IILEPG2026	Endangered		G5T1T2	S1S2	
8	hooked popcorn-flower *Plagiobothrys uncinatus*	PDBOR0V170			G2	S2.2	1B.2
9	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0			G3G4	S3S4.2	4.2
10	steelhead - south/central California coast ESU *Oncorhynchus mykiss irideus*	AFCHA0209H	Threatened		G5T2Q	S2	SC
11	tricolored blackbird *Agelaius tricolor*	ABPBXB0020			G2G3	S2	SC
12	western pond turtle *Actinemys marmorata*	ARAAD02030			G3G4	S3	SC

EXHIBIT A
San Jose and Seneca Creeks Road and Crossings Upgrades and Decommissioning
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Reduce sediment delivery to the San Jose Creek watershed by decommissioning two wet ford channel crossings and installing two flat-car bridges, one over Seneca Creek downstream of the existing ford, the other over San Jose Creek downstream of the existing ford (See Figure 3). Construct 740 feet of hydrologically-disconnected road to re-route the Palo Corona Trail; upgrade 490 feet of existing road; hydrologically-disconnect 1400 feet of existing road and reconstruct 60 feet of seasonal stream channel; decommission 670 feet of existing road connected to the wet ford crossings; decommission 3 additional channel crossings located on two tributaries to San Jose Creek and upstream and NE of the flat car bridges to be installed.
2. Conduct work in the San Jose Creek watershed near the confluence of Seneca Creek, approximately 3.8 river miles upstream from the mouth of San Jose Creek. The project is located in the NE ¼ of the NW ¼ and the NW ¼ of the NE ¼ of Section 32, Range 1E, Township 16S of the Monterey, California USGS 7.5 minute quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by reference.
3. Reduce sediment to the San Jose Creek watershed by completing the following work (refer to Figure 3, attached):
    a. Complete the final designs for the treatments, including the alignment of the new road and footings for the bridges, specifying location and type of water-control features (e.g., rolling dips, drain dips, water bars, out-sloping, berm removal procedures, etc.), revetment features related to channel restoration, armored fill crossings, and revegetation/erosion control plan. These designs will be submitted to the Grant Manager at least one month before beginning work for approval. The Grant Manager will coordinate review and approval by engineering staff from either DFG or NOAA. After the final design is approved, any changes must be approved by the Grant Manager.
    b. Obtain all necessary federal, state, and local permits.
    c. Decommission 5 crossings, restore natural grade, profile and plan of the stream, and reconstruct the banks. Sediment removed from the channels will be used as fill as needed within the project area.
    d. Decommission 670 feet of road through existing wet ford crossings by ripping the road bed to de-compact the road, re-contouring the former road bed to better integrate with adjacent landforms and restore drainage, and seeding and mulching disturbed area with native vegetation seed source.
    e. Construct 740 feet of new road that is hydrologically-disconnected from the creeks to re-route Palo Corona trail over installed flat-car bridges.
    f. Hydrologically disconnect 1400 feet of road on the upslope side of the project. This includes removing the outboard berm and constructing water bars on 30-50 foot centers. Reconstruct 60 feet of seasonal tributary to San Jose Creek located downstream of this road segment.
    g. Upgrade 490 feet of road that connects to the newly constructed portion of road on the east side of San Jose Creek. This entails removing the outboard berm, out-sloping the road, and installing drain dips at approximately 50 foot centers.
    h. Spoil material will be stored in stable locations where it will not erode. If stable spoils storage sites are not available within the project area, they will be end-hauled to a stable storage site outside the project area.
    i. All bare, disturbed, and compacted areas shall be mulched, with straw and available native plant material stockpiled within the project site, at the completion of the project prior to the first fall rain.

4. Work only where authorized for reimbursement under the terms of this agreement at sites which are expected to erode and deliver sediment to the stream. Reimbursement will not be authorized for work done to improve the aesthetic values only.
5. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al. 1998), and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part XI, January 2004 and Part X, March 2006.
6. Submit a progress report to the contract manager at least once every three months. In addition, if work has been completed under the contract during the three month reporting period, submit an invoice and a record of in-kind services provided during the invoice billing period. The invoice submission shall include a separate record of specific expenditures in the format of Exhibit B.
7. Upon completion of the project, the Grantee shall return all reusable equipment purchased under this grant.
8. Upon completion of the project, the Grantee shall submit one (1) copy of a draft final report not later than January 31, 2014 for review and comment. Within 30 days of receipt of the draft report, the Project Manager shall submit his final comments to the Grantee. Upon completion of the project, the Grantee shall submit two (2) hard copies of a final written report and one (1) electronic, *Microsoft Word* compatible, on a CD. The report shall not be considered final until approved and accepted by the grant manager. The report shall include, but not necessarily be limited to the following information:

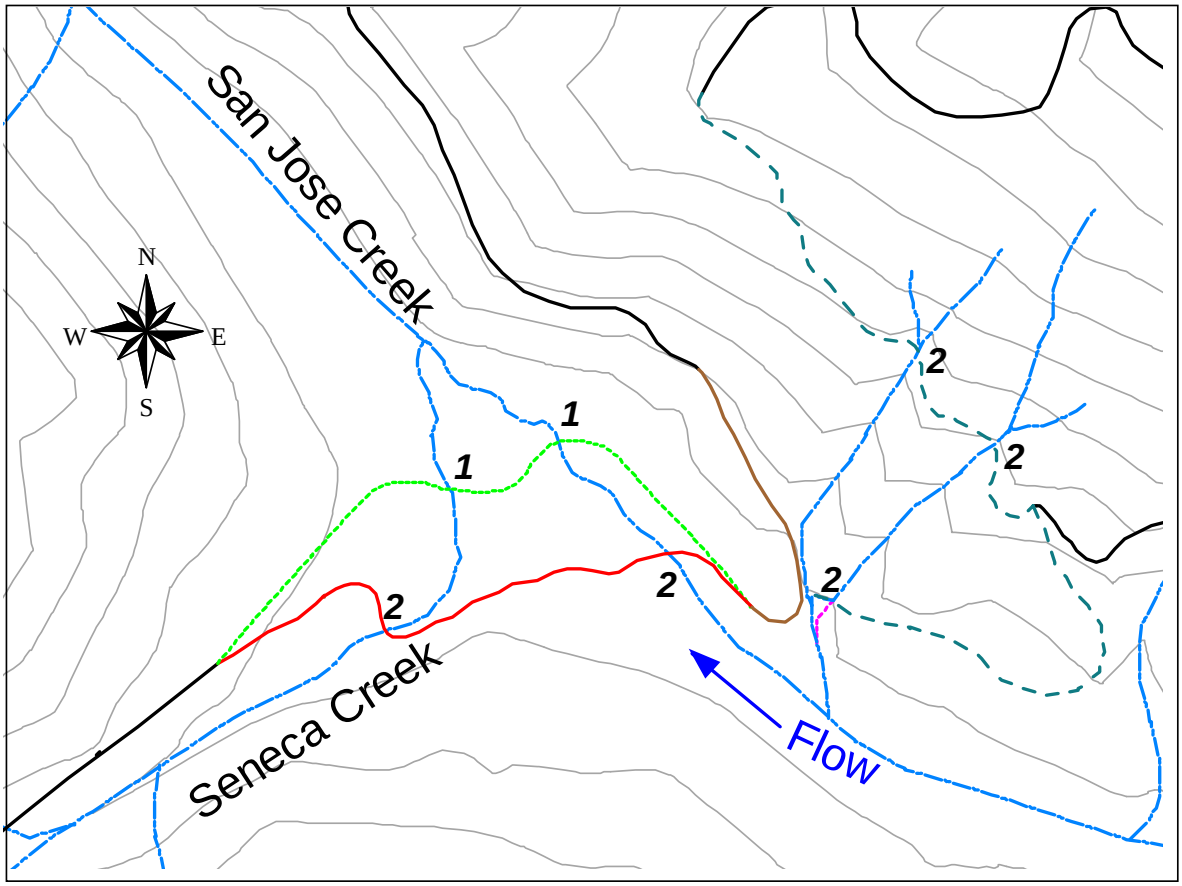
    - Grant number;
    - Project name;
    - Geographic area (e.g., watershed name);
    - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map;
    - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon);
    - Project start and end dates;
    - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service);
    - Total number of volunteer hours; dollar value of volunteer work; description of how the dollar value of the volunteer labor was determined; dollar value of non-volunteer donated labor; and description and dollar value of non-labor in-kind contributions to the project.
    - Expected benefits to anadromous salmonids from the project;
    - Labeled before and after photographs of any restoration activities and techniques;
    - Specific project access using public and private roads and trails, with landowner name and address;
    - Complete as built project description; and
    - Report measurable metrics for the project by responding to the restoration project metrics listed below.

    Habitat Protection and Restoration Projects – Reporting Metrics (HU)

    <u>Watershed Restoration – Upslope (HU)</u>
        - Total miles of road treated;
        - Total acres of upslope area treated;
        - If project involves road treatment:
            - Miles of road treated for road drainage system improvements;
            - Miles of road decommissioned/abandoned;
        - If project involves upland erosion and sediment control:

    - Type(s) of upland erosion and sediment control, select from erosion control structures; planting; or slope stabilization;
    - Number of erosion/sediment control installations;
- If project involves upland agriculture management:
    - Type(s) of upland agriculture management, select from agricultural management practices; vegetative and tilling practices; or structural practices;
- If project involved upland livestock management:
    - Type(s) of upland livestock management, select from livestock watering schedules; grazing management plans; upland exclusion and fencing; or livestock water development;
    - Number of livestock water installations;
- If project involved vegetation removal or control:
    - Acres of upslope area treated for vegetation removal/control;
- Cubic yards of sediment prevented from entering the stream;
- Number of stream crossing treated;
- If monitoring was included in the project:
    - Type of monitoring, select from: implementation monitoring; compliance monitoring-engineering design; compliance monitoring-project design; pre-treatment monitoring; post treatment monitoring; salmonid monitoring; non-salmonid biological monitoring; water flow monitoring; or physical monitoring; and
    - Location of monitoring, select from: onsite; upstream; downstream; or upslope.

3. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant Program funds on any signs, flyers, or other types of written communication or notice to advertise or explain the San Jose and Seneca Creeks Roads and Crossings Upgrades and Decommissioning Project.



300 0 300 600 Feet

Contour Interval - 40 feet

LEGEND

ROADS

- Road Segments to be Upgraded
- Proposed Reroute of Palo Corona Trail
- Road Segment to be Hydrologically Disconnected - Bank and Channel Restoration
- Road Segments to be Decommissioned
- Inventoried Roads

STREAM CROSSINGS

1 New Flat-Car Bridge

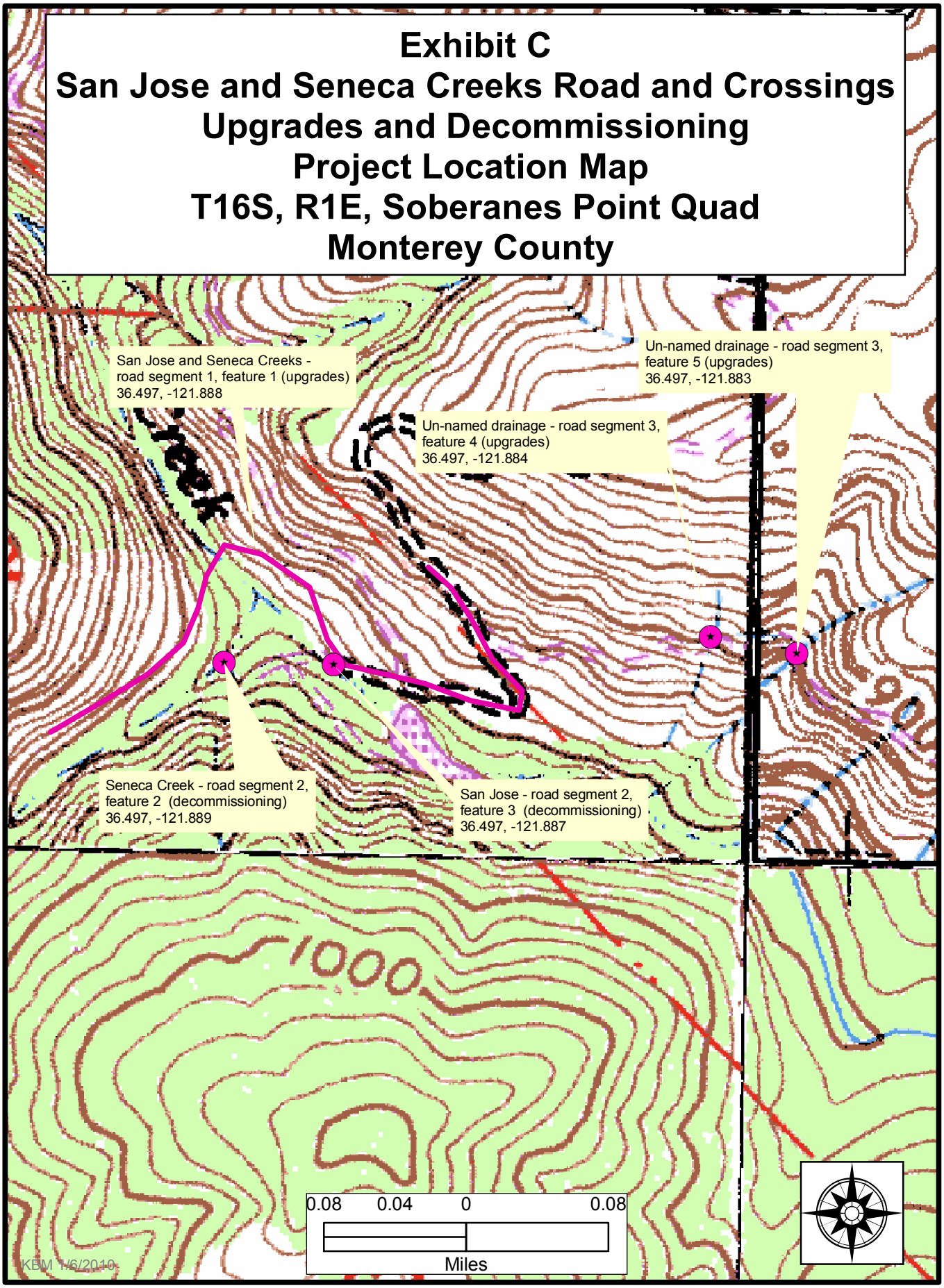
2 Wet-ford Crossing to be Decommissioned- Bank and Channel Restoration

STREAM CHANNELS

- Stream Channel Section to be Restored

Figure 3: Site Plan for the Decomissioning of Crossings and Road Segments Seneca and San Jose Creeks

Exhibit C
San Jose and Seneca Creeks Road and Crossings Upgrades and Decommissioning
Project Location Map
T16S, R1E, Soberanes Point Quad
Monterey County



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723448_135_HU_San Jose and Seneca Creeks Road and Crossings Upgrades and Decommissioning
T16S R1E S22

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	California red-legged frog *Rana draytonii*	AAABH01022	Threatened		G4T2T3	S2S3	SC
2	California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened	unknown code...	G2G3	S2S3	SC
3	Carmel Valley bush-mallow *Malacothamnus palmeri var. involucratus*	PDMAL0Q0B1			G3T2Q	S2.2	1B.2
4	Carmel Valley malacothrix *Malacothrix saxatilis var. arachnoidea*	PDAST660C2			G5T2	S2.2	1B.2
5	Coast Range newt *Taricha torosa torosa*	AAAAF02032			G5T4	S4	SC
6	Eastwood's goldenbush *Ericameria fasciculata*	PDAST3L080			G2	S2.1	1B.1
7	Hutchinson's larkspur *Delphinium hutchinsoniae*	PDRAN0B0V0			G2	S2.1	1B.2
8	Smith's blue butterfly *Euphilotes enoptes smithi*	IILEPG2026	Endangered		G5T1T2	S1S2	
9	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
10	hooked popcorn-flower *Plagiobothrys uncinatus*	PDBOR0V170			G2	S2.2	1B.2
11	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0			G3G4	S3S4.2	4.2
12	steelhead - south/central California coast ESU *Oncorhynchus mykiss irideus*	AFCHA0209H	Threatened		G5T2Q	S2	SC
13	tricolored blackbird *Agelaius tricolor*	ABPBXB0020			G2G3	S2	SC
14	western pond turtle *Actinemys marmorata*	ARAAD02030			G3G4	S3	SC